



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,585	01/21/2004	Tamotsu Iida	118300	1122
25944	7590	09/12/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			BIBBINS, LATANYA	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,585

Applicant(s)

IIDA ET AL.

Examiner

LaTanya Bibbins

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/21/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Preliminary Amendment

1. Receipt is acknowledged of the preliminary amendment filed on January 21, 2004. In the amendment, claims 1-4, 8-11, and 13 were amended. Currently claims 1-16 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 11 and 13 recite the limitation "the flat portion." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-4, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Spruit (US Patent Number 6,407,969 B1).**

Regarding claim 1, an optical disk comprising: a groove and a land formed on a substrate (column 4 lines 13 and 14); a recording region formed on the substrate for recording user data (column 4 lines 6-8), and a management region formed on the substrate and provided adjacently to the recording region including an identification information region for recording disk-specific identification information (column 4 lines 6-8), wherein the identification information region has a flat portion formed by sectioning part of at least one of the groove and the land in a given step (column 4 lines 14 and 15).

Regarding claim 2, wherein the flat portion forms a plane having the same height as at least one of the groove adjacent to the land and the land adjacent to the groove (column 4 lines 14 and 15). In order for an optical disc (which has lands and grooves) to contain a flat portion, the flat portion must have the same height as either the land or the groove.

Regarding claim 3, wherein the flat portion has a width in a perpendicular direction to a track direction which is wider in a radial direction than a width of at least one of the groove and the land (Figure 4 element 17).

Regarding claim 4, wherein the disk-specific identification information is recorded on at least one of the groove and the land including the flat portion (see column 4 lines 12-15).

Regarding claim 6, wherein the disk-specific identification information includes any one selected from the group consisting of address information, a SYNC code, and an error detection code (see column 4 lines 18 and 19).

6. Claims 9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi (US PGPub 2002/0031070 A1).

Regarding claim 9, a method of playing an optical disk formed by providing a recording region for recording user data and a management region having an identification information region for recording disk-specific identification information on a substrate (paragraph [0068]), the method comprising the steps of focusing a laser beam from a light source on the optical disk (paragraph [0089]); servoing the focused laser beam (paragraphs [0093] to [0095]) on at least one of a groove and a land (see paragraph [0065]); detecting a signal in the identification information region and a signal of the disk-specific identification information by use of the laser beam being servoed on (see the header detection unit in paragraph [0134]); and detecting a change in a signal level of the detected disk-specific identification information based on a predetermined threshold level (see paragraph [0135] and Figures 5A – 5D).

Regarding claim 11, wherein the threshold level is respectively set between each of a signal level of the flat portion and a signal level of the disk-specific identification information, and a signal level of the disk-specific identification information recorded on the at least one of the groove and the land other than the flat portion (see Figures 5A-5D).

Regarding claim 12, the method of playing an optical disk according to claim 9, wherein the threshold level is set based on medium type information recorded in advance (see paragraph [0085]).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. ***Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spruit (US Patent Number 6,407,969 B1) as applied to claims 1-4 and 6 above.***

Regarding claim 5, Spruit teaches an optical disk wherein the disk-specific identification information is recorded in the identification information region (column 4 lines 6-8). While Spruit fails to specifically teach that the disk-specific identification information is recorded as an irreversible record mark, it would have been obvious to one of ordinary skill in the art at the time the invention was made to record the disk-specific identification information with an irreversible record mark. One of ordinary skill in the art at the time the invention was made would have been motivated to do so in order to protect the disk management information and prevent the user from inadvertently overwriting the disk-specific identification information and thus making the disk inoperable.

9. ***Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spruit (US Patent Number 6,407,969 B1) as applied to claims 1-6 above, and further in view of Nishiuchi et al. (US Patent Number 6,795,389 B1).***

Regarding claim 7, Spruit teaches an optical disk with a management area but fails to teach that the medium type information is recorded in the management region. Nishiuchi, however, teaches an optical disk wherein medium type information is recorded in the management region (see column 8 lines 11 –13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk management region taught by Nishiuchi into the optical disk of Spruit. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to prevent errors during reproduction and stabilize recording characteristics (Nishiuchi column 2 lines 46-50).

Regarding claim 8, Spruit teaches an optical disk with a management area but fails to teach that the medium type information is recorded in the management region. Nishiuchi, however, teaches an optical disk with medium type information in the management region and that the medium type information includes any one selected from the group consisting of a disk type, a reflectance, a position of the recording track, a recording layer material, a playback power, and a recording polarity (see column 8 line 12 where Nishiuchi discloses that the disk type information is the “type of recording medium” and the “recording conditions”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk management region taught by Nishiuchi into the optical disk of Spruit. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to

Art Unit: 2633

prevent errors during reproduction and stabilize recording characteristics (Nishiuchi column 2 lines 46-50).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US PGPub 2002/0031070 A1) as applied to claims 9, 11, and 12 above, and further in view of Spruit (US Patent Number 6,407,969 B1).

Regarding claim 10, Hayashi teaches a method of playing an optical disk that contains an identification information region (paragraph [0068]) but fails to teach that the identification information region has a flat portion formed by sectioning part of the at least one of the groove and the land in a given step. Spruit, however, teaches the identification information region has a flat portion formed by sectioning part of at least one of the groove and the land in a given step (column 4 lines 14 and 15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hayashi and Spruit. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to create a reliable reading of addresss information (Spruit Column 1 lines 66 and 67).

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US PGPub 2002/0031070 A1) as applied to claims 9, 11, and 12 above, and further in view of Spruit (US Patent Number 6,407,969 B1) and Stebbings et al (US PGPub Number 2005/0190677 A1).

Regarding claim 13, Hayashi teaches a method of playing an optical disk wherein a signal of the disk specific identification information is recorded on at least one of the grove and the land. Hayashi fails to teach that the signal is used as a synchronization signal and that authenticity of the disk-specific identification information is judged.

Spruit, on the other hand, teaches that the address information areas include a sync field (column 4 lines 19 and 20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hayashi and Spruit. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the synchronization field into the optical disc because the synchronization fields provide a reliable synchronization before information in the form of address information fields or data fields is read or written (Spruit column 1 lines 37-40).

In addition, Stebbings teaches an optical disk method where the authenticity of the disk-specific information is judged (see paragraph [0185]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hayashi and Spruit with that of Stebbings. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to prevent pirating of data (Stebbing's paragraph [0003]).

12. Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US PGPub 2002/0031070 A1) and further in view of Stebbings et al (US PGPub Number 2005/0190677 A1).

Regarding claim 14, Hayashi teaches an optical disk drive (Figure 1) having an optical head for focusing a laser beam on an optical disk (Figure 1 element 3), a playback signal processing circuit for processing a signal detected from the optical disk (Figure 1 element 14), a controller (Figure 1 element 13), a servo control circuit (Figure 1 element 5), and a spindle motor (Figure 1 element 2), wherein the playback signal processing circuit comprises: a circuit for detecting a change in a signal level of disk-specific identification information recorded on the optical disk based on a predetermined threshold level (see paragraph [0135] and Figures 5A – 5D). Hayashi fails to teach that the playback signal processing circuit comprises a circuit for judging authenticity of the disk-specific identification information. Stebbings however teaches a playback signal processing circuit comprises a circuit for judging authenticity of the disk-specific identification information (paragraph [0185]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disk drive of Hayashi with the security circuitry of Stebbings. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to prevent pirating of data (Stebbing's paragraph [0003]).

Regarding claim 16, Hayashi teaches an optical disk drive (Figure 1) but fails to teach a circuit for judging authenticity of the disk-specific identification information that

Art Unit: 2633

executes an operation including any one selected from the group consisting of termination of recording and playback, alarm display, and discharge of the optical disk. Stebbings, on the other hand, teaches playback circuitry that causes the disc player to end playback if it is determined that the disc is fraudulent (Stebbing's paragraph [0185]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the optical disk drive of Hayashi with the security circuitry of Stebbings. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to prevent pirating of data (Stebbing's paragraph [0003]).

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US PGPub 2002/0031070 A1) and Stebbings et al (US PGPub Number 2005/0190677 A1) as applied to claims 14 and 16 above, and further in view of Spruit (US Patent Number 6,407,969 B1).

Regarding claim 15, Hayashi and Stebbings teach an optical disk drive, but fail to teach an optical disk wherein the disk-specific identification information is recorded on a management region, which is adjacent to a recording region of the optical disk for recording user data. Spruit, on the other hand, teaches an optical disc wherein the disk-specific identification information is recorded on a management region, which is adjacent to a recording region of the optical disk for recording user data (column 4 lines 6-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the disk drive apparatus of Hayashi and Stebbings with the optical disk of Spruit. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to provide a larger storage capacity of the information carrier and a reliable reading of the address information (Spruit column 1 lines 65-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571 272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/760,585

Page 12

Art Unit: 2633

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


LaTanya Bibbins
Patent Examiner


SHANON A. FOLEY
SUPERVISORY PATENT EXAMINER